



THE FLORIDA POWER & LIGHT LED STREETLIGHT CONVERSION PROGRAM FOR THE CITY OF HOLLYWOOD

March 21, 2018

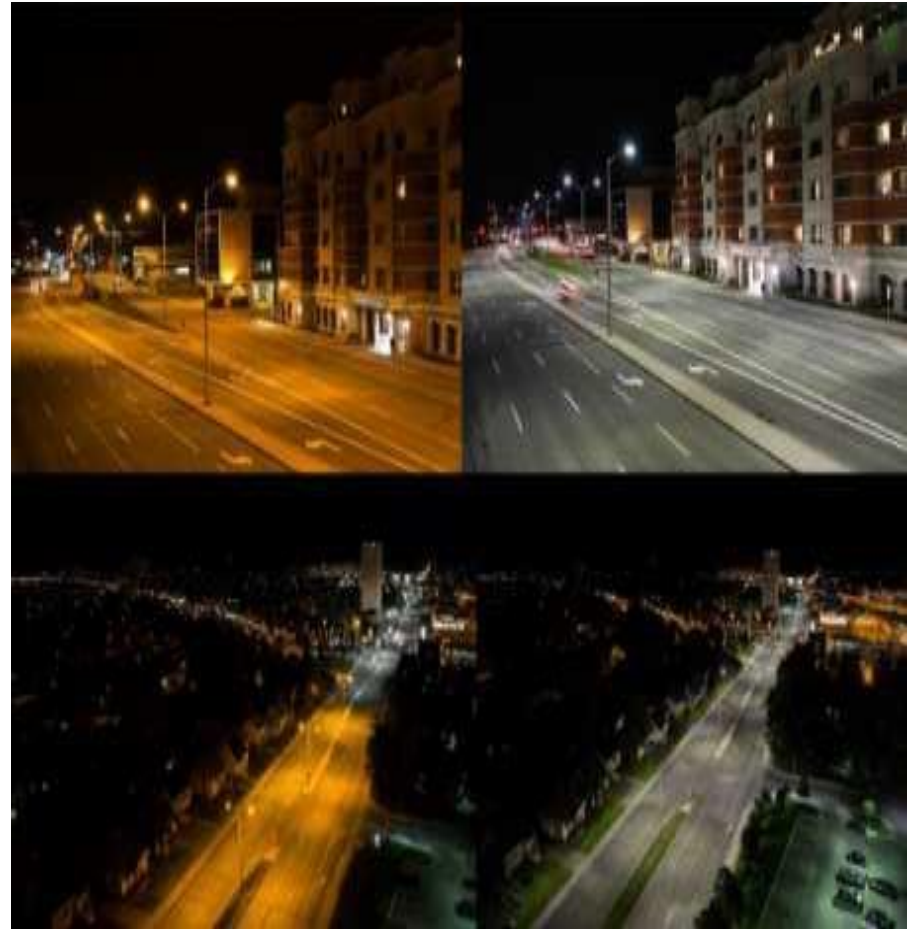
Newly-Approved FPL Street Lighting Tariff

- **FPL LT-1 Tariff was approved by the Public Service Commission on April 28, 2017**
 - Allows installation of FPL-owned Light-Emitting Diode (LED) street lights in cities and municipalities
 - There will be no “up front” expense to the City of Hollywood
 - Allows for the conversion of High-Pressure Sodium Vapor (HPSV) lights owned and maintained by FPL under current SL-1 Lighting Tariff into LED Streetlights
 - Phase II of this Tariff would explore the conversion of HPSV lights owned and maintained by City
 - Fixture selection determines monthly charges
 - Type of fixture
 - Reduced FPL maintenance expense
 - Reduced energy expense

Benefits of LED

- **Safety & Security**

- High-Color Rendering Index (CRI)
- Positive Public Safety Impact
 - Criminal Prevention Through Environmental Design (CPTED) Guidelines
- High Efficiency
 - Improved lighting levels
 - Improved lighting quality
 - Increased energy savings
 - Reduction of carbon footprint
 - Reliability
 - Longer product life
 - Decreased maintenance expense
 - Dark Skies Impact
 - Reduction of lighting pollution



HPSV

LED

Benefits of LED – Improved Visibility

Compare uplight
component from
HPSV vs LED



Benefits of LED – Reduction of Lighting Pollution

Light Pollution – City of Los Angeles



HPSV



LED

LED Conversion – Local Municipality (Miami Springs)

139W
LED



41W
LED



200W
HPSV

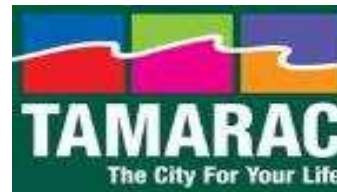


100W
HPSV



Demand for the Program is Increasing!

Participating Broward County Municipalities



Other Participating Municipalities!



*Golden
BEACH*



Highland Beach

Let's Go!



The City of Hollywood
will be the **LARGEST** FPL municipal LED conversion!

FPL-Owned Existing Street Lighting Inventory

Residential

- HPSV – 70 Watt 4,519
- HPSV – 100 Watt 773
- *Subtotal* 5,292

Commercial Corridors and Main Roadways

- HPSV – 150 Watt 201
- HPSV – 200 Watt 246
- HPSV – 250 Watt 4
- HPSV – 400 Watt 45
- *Subtotal* 496

Total Inventory – 5,788

Staff Recommendation

Residential -
Conversion to LED

Number of Lights	Existing	Recommendation
4,519	HPSV 70w	RSW 45w
773	HPSV 100w	RSW 45w



Staff Recommendation

Commercial Corridors and Main Roadways -
Conversion to LED Equivalent

Number of Lights	Existing	Recommendation
201	HPSV 150w	ATBS 76w
246	HPSV 200w	ATBM 115w
4	HPSV 250w	ATBM 115w
45	HPSV 400w	ATBL 259w



LED Lighting Conversion – Financial Impact

Number of Street Lights	Current Monthly Expense	Post-Conversion Monthly Expense
4,519	\$36,776	\$37,956
773	\$ 7,107	\$ 6,493
201	\$ 2,187	\$ 1,884
246	\$ 3,887	\$ 2,582
4	\$ 82	\$ 42
45	\$ 938	\$ 925
Total Monthly Expense:	\$50,977	\$49,882 (-2.1%)
	Approximate Savings – \$13,000 Annually	

LED Lighting Conversion - Public Safety Impact

- **Positive Public Safety Impact**
 - Criminal Prevention Through Environmental Design (CPTED)
 - Crime Prevention (violent/non-violent crimes)
 - Traffic Safety
 - Pedestrian/Bicycle Safety
- **State Grants- LED Street Light Conversion Programs**
 - Two State Grant Programs
 - Completed July 2017
 - Comparison of Crime Statistics Before/After LED Conversion
 - Washington Park Neighborhood –
 - Total Crime Index Reduction → -9%
 - Liberia Neighborhood –
 - Total Crime Index Reduction → -20%

LED Lighting Conversion - Sustainability Impact

- **City of Hollywood**
 - Reduction of Carbon Footprint by 1,269,300 kWh Annually
 - Greenhouse Gas Emissions Annually Saved by this initiative
 - 2,315,281 miles driven by the average passenger vehicle annually
 - 329 tons of waste recycled instead of heading to the landfill annually
 - 202 passengers vehicles removed from the roadway annually
 - Carbon Dioxide emissions prevented by this initiative
 - 1,033,517 lbs of coal burned annually
 - 106,294 gallons of gas consumed annually
 - 31,614 incandescent lamps switched to LED annually
 - 142 homes electricity use annually

LED Lighting Conversion - Impact From Other Agencies

LED Street Light Retrofits at City Intersections - FDOT

Locations are being scheduled - design phase completed.	Locations are currently in construction phase.
Taft Street & US1	Sheridan Street & A1A
Sunset Drive & 441	Johnson Street & A1A
Sheridan Street & 441	Michigan Street & A1A
Johnson Street & 441	Indiana Street & A1A
Washington Street & 441	Arizona Street & A1A
	Harrison Street & A1A

Final Summary

- **LED Conversion Benefits**

- Annual savings of ~\$13,000
- Increased Lighting Levels
- Improved Lighting Quality
- Positive Public Safety Impact
 - Criminal Prevention Through Environmental Design (CPTED)
- Sustainability Impact
- Impact from Other Agencies

- **Project Implementation**

- 4 to 5 Months for FPL to complete Final Engineering
- Project accomplishment will be ~1 year after Final Engineering

- **Ongoing Discussions with FPL**

- LED Conversion of City-owned street lights
 - Staff is currently assessing the conversion through the FPL Tariff

Please Provide Your Questions & Your Feedback

